Remarks

Claims 1-7 have been amended. Support for the amendments may be found throughout the specification and in the original claims, for example at page 12, line 20 to page 16, line 16. No new matter enters by these amendments.

Applicants acknowledge and thank the Examiner for the allowance of claims 1 and 2.

I. Restriction Requirement

The Examiner alleges that claims 1-7 are generic to a plurality of disclosed patentably distinct species. The Examiner notes the Applicants' traversal but still requires an election of a single disclosed sequence. Office Action page 2. Applicants maintain their traversal and affirm the provisional election of SEQ ID NO: 1 to facilitate prosecution.

II. Rejection under 35 U.S.C. §112, 1st Paragraph, Written Description

Claims 3-7 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly lacking adequate written description. Applicants respectfully traverse this rejection.

The Examiner asserts that the specification provides insufficient written description to support the genus encompassed by the claims. Office Action pages 3-4.

The purpose of the written description requirement is to ensure that the inventors had possession of the claimed subject matter, *i.e.*, to ensure that the inventors actually invented what is claimed. *Gentry Gallery Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479, 45 U.S.P.Q.2d 1498, 1503 (Fed. Cir. 1998); *Lockwood v. American Airlines*, 107 F.3d 1565, 1572, 41 U.S.P.Q.2d 1961, 1966 (Fed. Cir. 1997); *In re Alton*, 76 F.3d 1168, 1172, 37 U.S.P.Q.2d 1578, 1581 (Fed. Cir. 1996). In accordance with this purpose, Applicants need not "describe," in the sense of Section 112, all things that are encompassed by the claims. To contend otherwise would contradict established jurisprudence, which teaches that a patent may be infringed by technology developed after a patent issues. *United States Steel Corp. v. Phillips Petroleum Co.*, 865 F.2d

1247, 1251, 9 U.S.P.Q.2d 1461, 1464 (Fed. Cir. 1989). A related, and equally well-established principle of patent law is that claims "may be broader than the specific embodiment disclosed in a specification." *Ralston Purina Co. v. Far-mor-Co*, 772 F.2d 1570, 1575, 227 U.S.P.Q. 177, 179 (Fed. Cir. 1985), *quoting In re Rasmussen*, 650 F.2d 1212, 1215, 211 U.S.P.Q. 323, 326 (C.C.P.A. 1981). Thus, in order for Applicants to describe each and every molecule encompassed by the claims, it is not required that every aspect of those nucleic acid molecules be disclosed. *In re Alton*, 76 F.3d 1168, 1175, 37 U.S.P.Q.2d 1578, 1581 (Fed. Cir. 1996) (a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing even if every nuance of the claims is not explicitly described in the specification).

The Examiner acknowledges that SEQ ID NO: 1 meets the written description requirement. However, the Examiner contends that the full breadth of the claim does not meet the written description requirement. Office Action page 6. The Examiner seems to assert that proper written description support for a claim directed to a nucleic acid sequence requires nothing less than the actual disclosure of every sequence encompassed by that claim. In support of these propositions, the Examiner relies on *Regents of the University of California v. Eli Lilly and Co*, 119 F.3d 1559, 43 U.S.P.Q.2d 1398 (Fed. Cir. 1997). Applicants respectfully disagree. In *Eli Lilly* the court found that claims to a vertebrate cDNA coding for insulin were inadequately described. However, the present case is clearly different from *Eli Lilly*. Specifically, the present claims "distinguish the claimed genus from others" and define "structural features commonly possessed by members of the genus that distinguishes them from others," unlike the claims at issue in *Eli Lilly*. *Id.* at 1568-69.

In particular, Applicants have provided a detailed chemical structure (SEQ ID NO: 1) that distinguishes that claimed genus from other nucleic acid molecules. Moreover, nucleic acid molecules falling within the scope of the present claims are readily identifiable in that they comprise a nucleic acid molecule having the sequence of SEQ ID NO: 1 and complements thereof. The fact that the nucleic acid molecules may comprise additional sequences or variations is beside the point. Such modifications are readily envisioned by one of ordinary skill

in the art and disclosed through the present specification. Thus, there is no deficiency in the written description support for claims 3-7 under 35 U.S.C. § 112, first paragraph. Reconsideration and withdrawal of this rejection are respectfully requested.

III. Rejection under 35 U.S.C. §112, 2nd Paragraph, Indefiniteness

Claims 3-7 stand rejected under 35 U.S.C. §112, 2nd Paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rejected over the recitation of the phrase "fragment thereof," because the Examiner alleges that it is not clear if a single amino acid fragment of the proteins are claimed or at least two amino acid fragments are claimed. Office Action page 6.

Applicants respectfully disagree, however, to facilitate prosecution, Applicants have amended claims 3-7 to remove the phrase "fragment thereof." Consequently, withdrawal of this rejection is respectfully requested.

IV. Rejection under 35 U.S.C. §102

Claims 3-7 stand rejected under 35 U.S.C. §102(a) as allegedly being anticipated by The Sanger Center and The Washington University Genome Sequencing Center (Genome Research, (1998) Vol. 8, pages 1097-1108). Office Action page 7. Applicants respectfully disagree. However, the rejection is rendered moot by the aforementioned amendments to claims 3-7 removing the phrase "fragment thereof." Consequently, withdrawal of this rejection is respectfully requested.

In view of the above, the presently pending claims are believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding

rejections and pass the application to issue. The Examiner is encouraged to contact the undersigned with respect to any unresolved issues remaining in this application.

In the event that extensions of time beyond those petitioned for herewith are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned. Applicants do not believe any additional fees are due in conjunction with this filing. However, if any fees under 37 C.F.R. 1.16 or 1.17 are required in the present application, including any fees for extensions of time, then the Commissioner is hereby authorized to charge such fees to Arnold & Porter Deposit Account No. 50-2387, referencing matter number 16517.124.

Respectfully submitted,

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Marked Up Claims

1. (Amended) A substantially purified nucleic acid molecule having [a] the nucleic acid sequence [selected from the group consisting] of SEQ ID NO: 1 [through SEQ ID NO: 51,470] or [complements thereof] its complement.

2. (Amended) A substantially purified nucleic acid molecule, said nucleic acid molecule capable of specifically hybridizing to a second nucleic acid molecule having [a] the nucleic acid sequence [selected from the group consisting] of SEQ ID NO: 1 [through SEQ ID NO: 51,470] or [complements thereof] its complement.

3. (Amended) A substantially purified [nucleic acid molecule encoding a] *Arabidopsis* protein [or fragment thereof], wherein said protein [or fragment thereof] is [selected from the group consisting of an *Arabidopsis* protein or fragment thereof from Table 2] encoded by a nucleic acid molecule consisting essentially of the sequence of SEQ ID NO: 1 or its complement.

4. (Amended) The substantially purified [nucleic acid molecule] *Arabidopsis* protein according to claim 3, wherein said *Arabidopsis* protein [or fragment thereof] is a homologue of a fungal protein [or fragment thereof].

5. (Amended) The substantially purified [nucleic acid] *Arabidopsis* protein according to claim 3, wherein said *Arabidopsis* protein [or fragment thereof] is a homologue of a non-*Arabidopsis* plant protein [or fragment thereof].

6. (Amended) The substantially purified [nucleic acid molecule] *Arabidopsis* protein according to claim 3, wherein said *Arabidopsis* protein [or fragment thereof] is a homologue of a mammalian protein [or fragment thereof].

7. (Amended) The substantially purified [nucleic acid molecule] *Arabidopsis* protein according to claim 3, wherein said *Arabidopsis* protein [or fragment thereof] is a homologue of a bacterial protein [or fragment thereof].